DOCUMENT RESUME

ED 133 988 EC 092 999

TITLE	The Game Bag: Instructional Games Kit.
INSTITUTION	North Carolina State Dept. of Public Instruction, Raleigh. Div. for Exceptional Children.
SPONS AGENCY	Bureau of Education for the Handicapped (DHEW/OE), Washington, D.C.
PUB DATE	Oct 76
NOTE	51p.
EDRS PRICE	MF-$0.83 HC-$3.50 Plus Postage.
DESCRIPTORS	Elementary Secondary Education; *Games; Guidelines; *Handicapped Children; *Teacher Developed Materials

ABSTRACT

Provided in the manual are instructions for the adaptation, utilization, and creation of multi-purpose gameboards for use with handicapped children. Games are seen to facilitate learning through the structuring of experience and the opportunity to learn the consequences of actions without actually suffering these consequences. Explained are the four stages of instructional game creation: analysis, design, development, and evaluation. Also provided is a bibliography of games, gaming resources, and publications. (DB)

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PROTOTYPE EDITION

THE GAME BAG

INSTRUCTIONAL GAMES KIT

Product
of the

Division for Exceptional Children
State Department of Public Instruction
Education Building
Raleigh, North Carolina 27611

Produced
by

Regional Support and Technical Assistance Centers
Coordinating Office
Raleigh, North Carolina

and

Special Education
Instructional Materials Development Center
Winston-Salem, North Carolina

October, 1976

EC092999

FOREWARD

Games have been a part of our culture for a long time, and have more recently found their way into the classroom. They have been played just for fun or as rewards but also have been valuable tools for skills reinforcement, for practice, for drill, and, in some instances, for instruction encouraging critical thinking.

The Regional Support and Technical Assistance Center, the Instructional Materials Development Center, and the Area Learning Resource Center of the University of Kentucky have joined together to prepare this kit of materials and suggestions for games for your use. The primary purpose for The Game Bag is to aid you in the adaptation and utilization of multi-purpose gameboards with children and students. We believe that the provision for multi-purpose boards will allow for greater flexibility and tailoring of games to meet specific instructional objectives in individualized instruction.

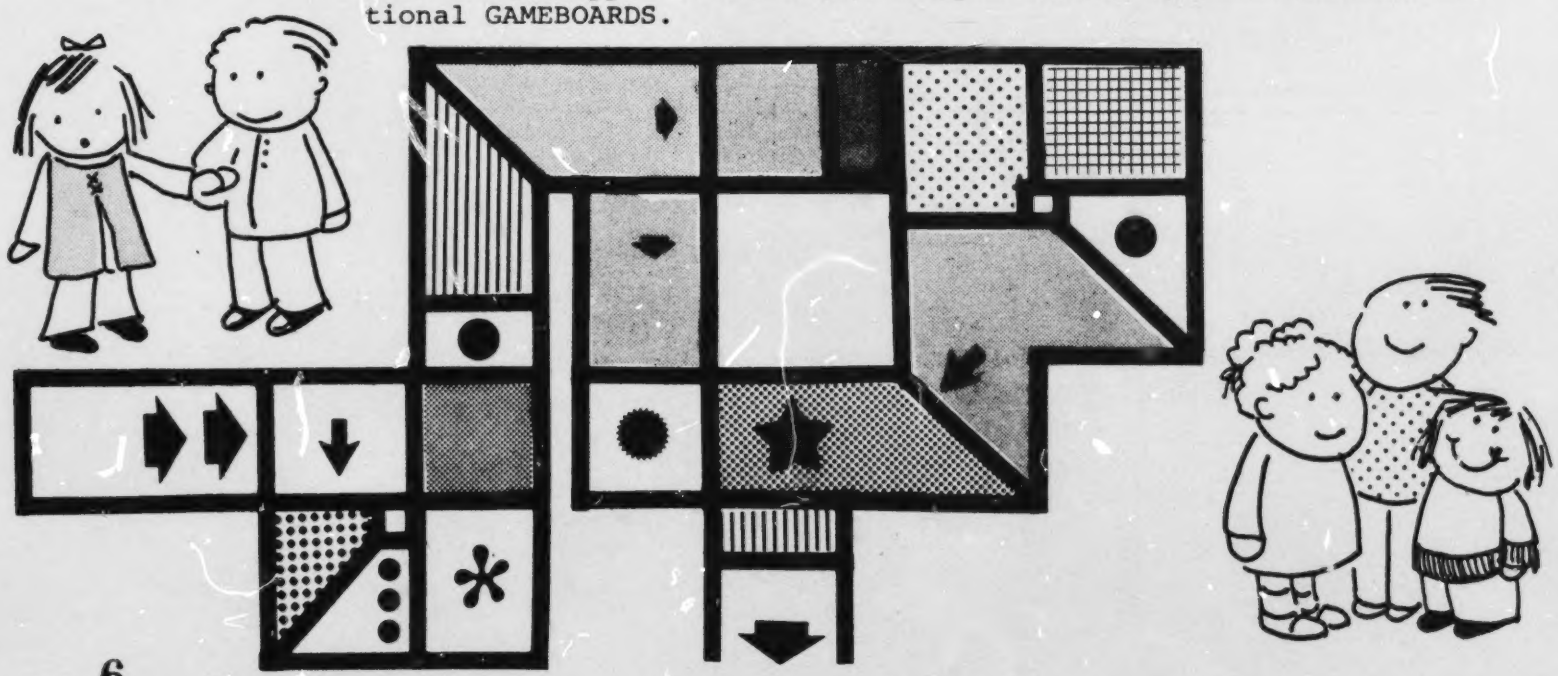
October, 1976

Theodore R. Drain
Division for Exceptional Children

INTRODUCTION

Games require action. Games require problem solving. Games are FUN. Games provide opportunities for the anticipation, calculation and manipulation of the immediate environment. Games provide opportunities to learn the consequences of actions without actually suffering these consequences. In short, games structure experience and facilitate LEARNING[1].

Instructional games can be used to provide practice on a new skill or reinforcement of a mastered skill. They may be used to encourage concept development and divergent thinking. For whatever purpose, the creation of instructional games involves four basic stages: ANALYSIS, DESIGN, DEVELOPMENT, EVALUATION. This manual applies these four stages to the creation of instructional GAMEBOARDS.



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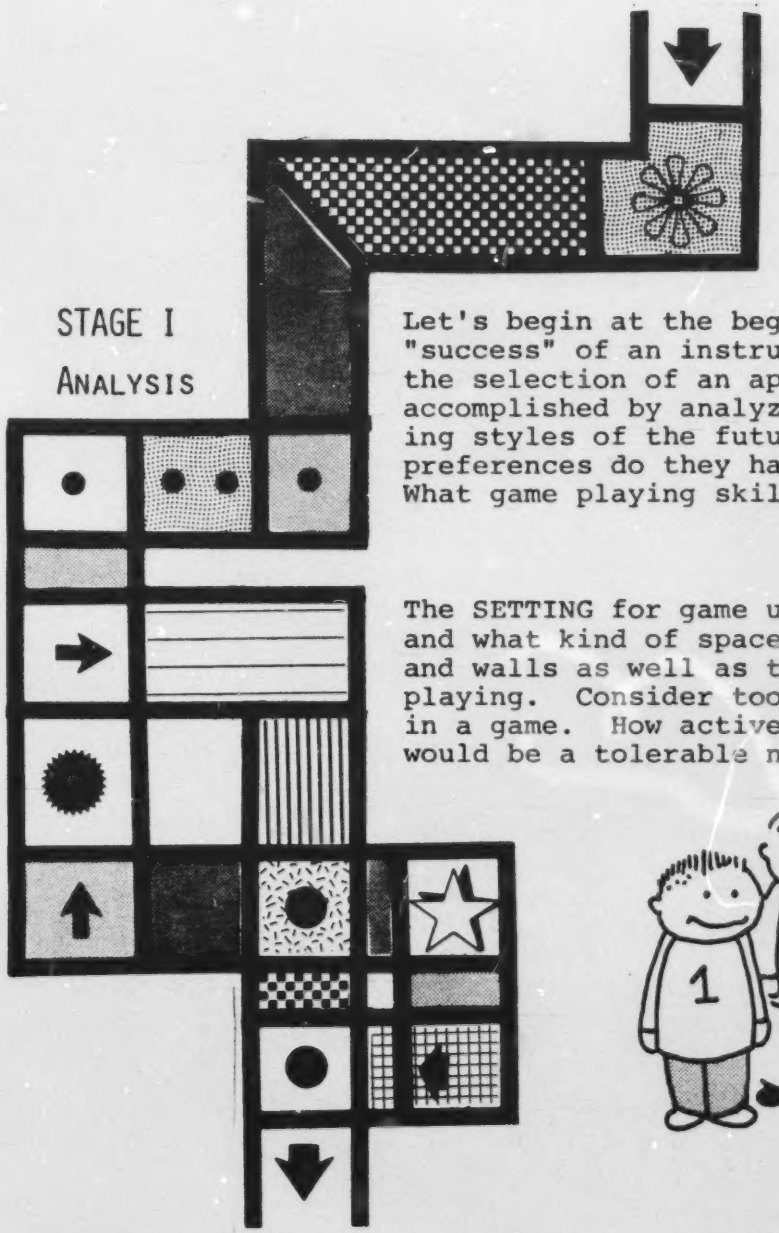
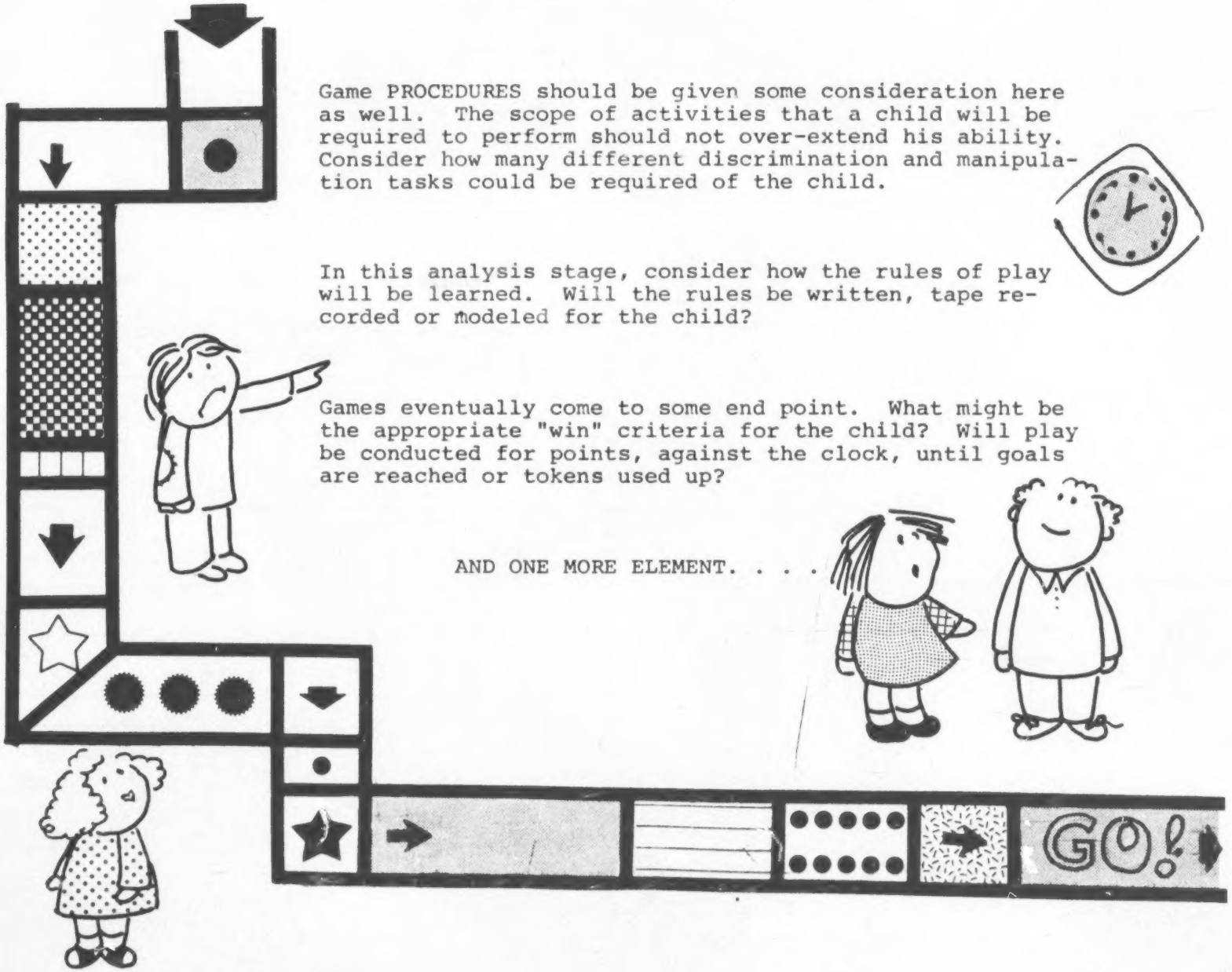


STAGE I

ANALYSIS

Let's begin at the beginning and look to the CHILD. The "success" of an instructional game will be dependent upon the selection of an appropriate OBJECTIVE. This can be accomplished by analyzing the functioning levels and learning styles of the future game players. What skills and preferences do they have? What skills need to be learned? What game playing skills must be mastered before play begins?

The SETTING for game usage needs to be considered. How much and what kind of space is available for game playing? Floors and walls as well as tables are potential surfaces for game playing. Consider too, the number of players to be involved in a game. How active or interactive a game is desired? What would be a tolerable noise level for the game setting?



Game PROCEDURES should be given some consideration here as well. The scope of activities that a child will be required to perform should not over-extend his ability. Consider how many different discrimination and manipulation tasks could be required of the child.

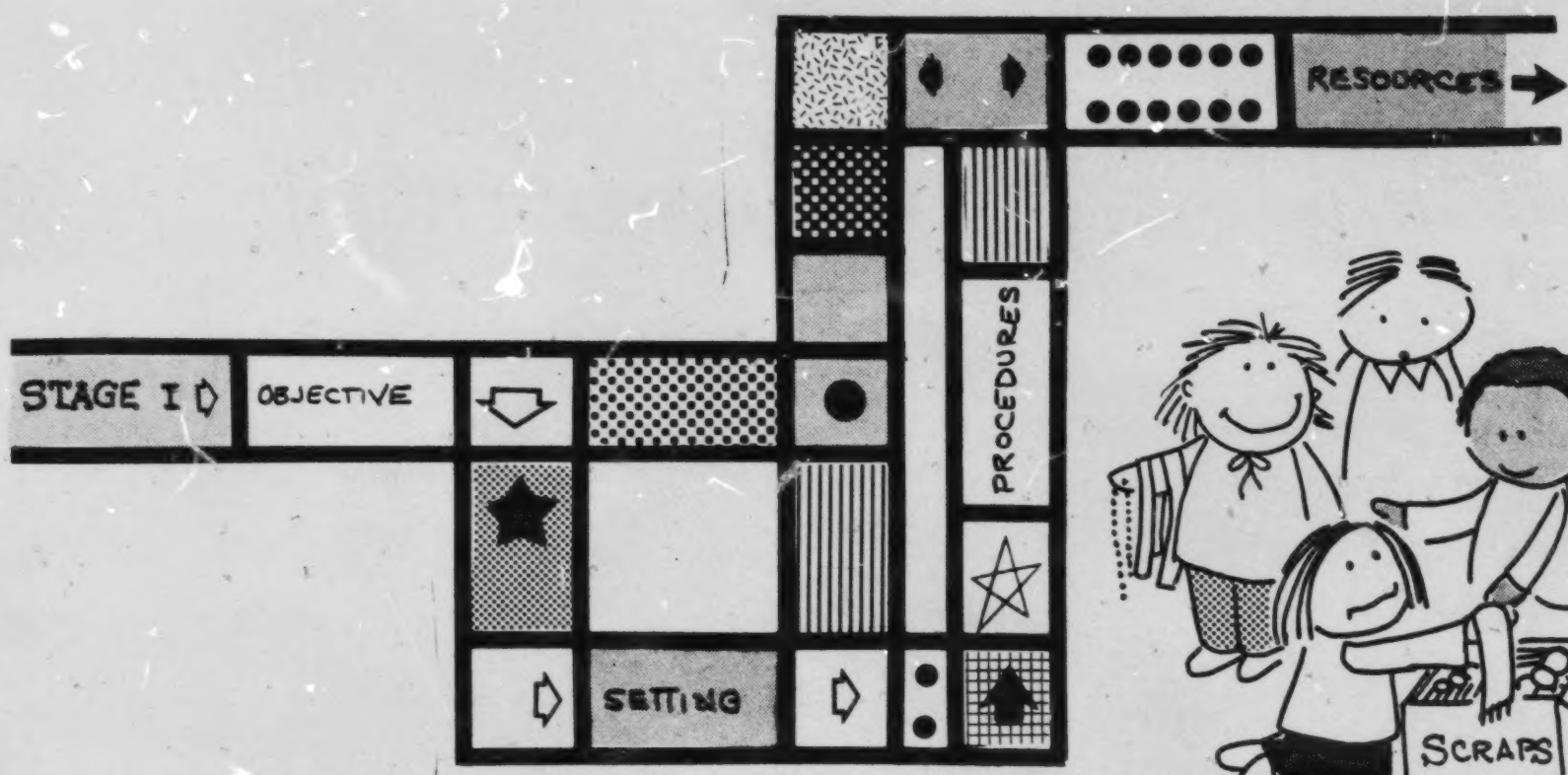
In this analysis stage, consider how the rules of play will be learned. Will the rules be written, tape recorded or modeled for the child?

Games eventually come to some end point. What might be the appropriate "win" criteria for the child? Will play be conducted for points, against the clock, until goals are reached or tokens used up?

AND ONE MORE ELEMENT. . . .

Assess your RESOURCES. Games can be developed from an infinite variety of materials. The commercial market provides a multitude of gaming materials and ideas. But don't overlook the potential of "junk", scraps, or other discardables that could be used to develop games.

Teachers, parents and children might also provide assistance in game design, development and evaluation.

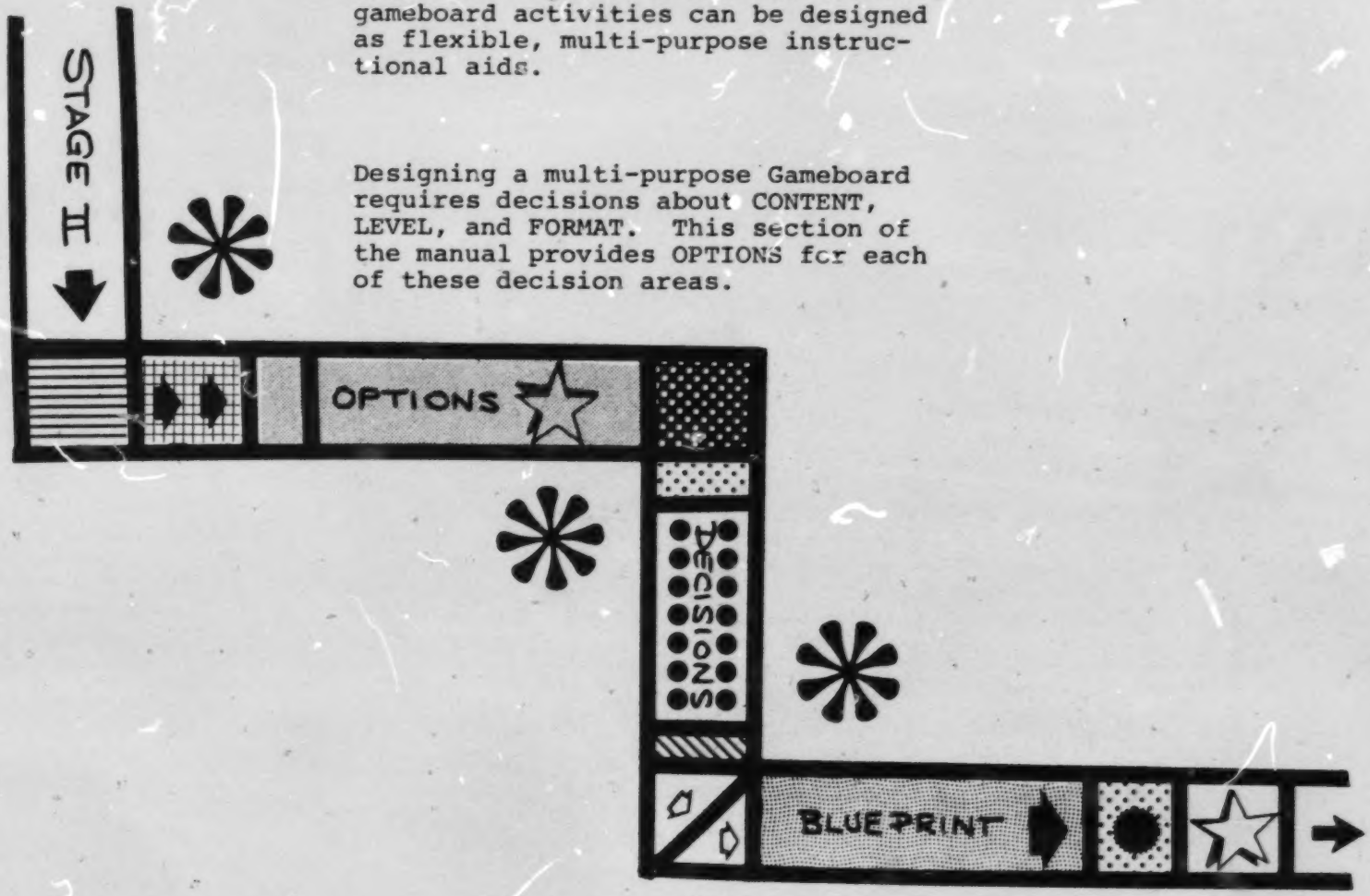


STAGE II

DESIGN

With ANALYSIS in hand, the DESIGN Stage can begin. The goal of the design stage is to create a BLUE PRINT for a game. Gameboards and gameboard activities can be designed as flexible, multi-purpose instructional aids.

Designing a multi-purpose Gameboard requires decisions about CONTENT, LEVEL, and FORMAT. This section of the manual provides OPTIONS for each of these decision areas.

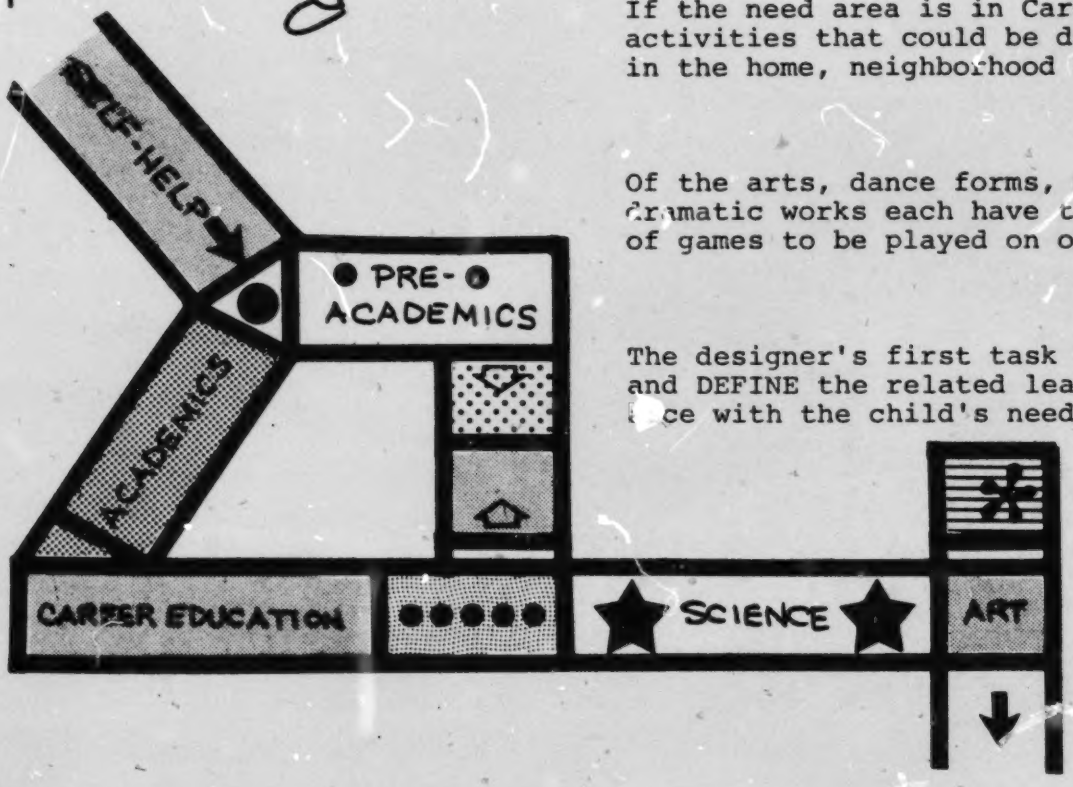


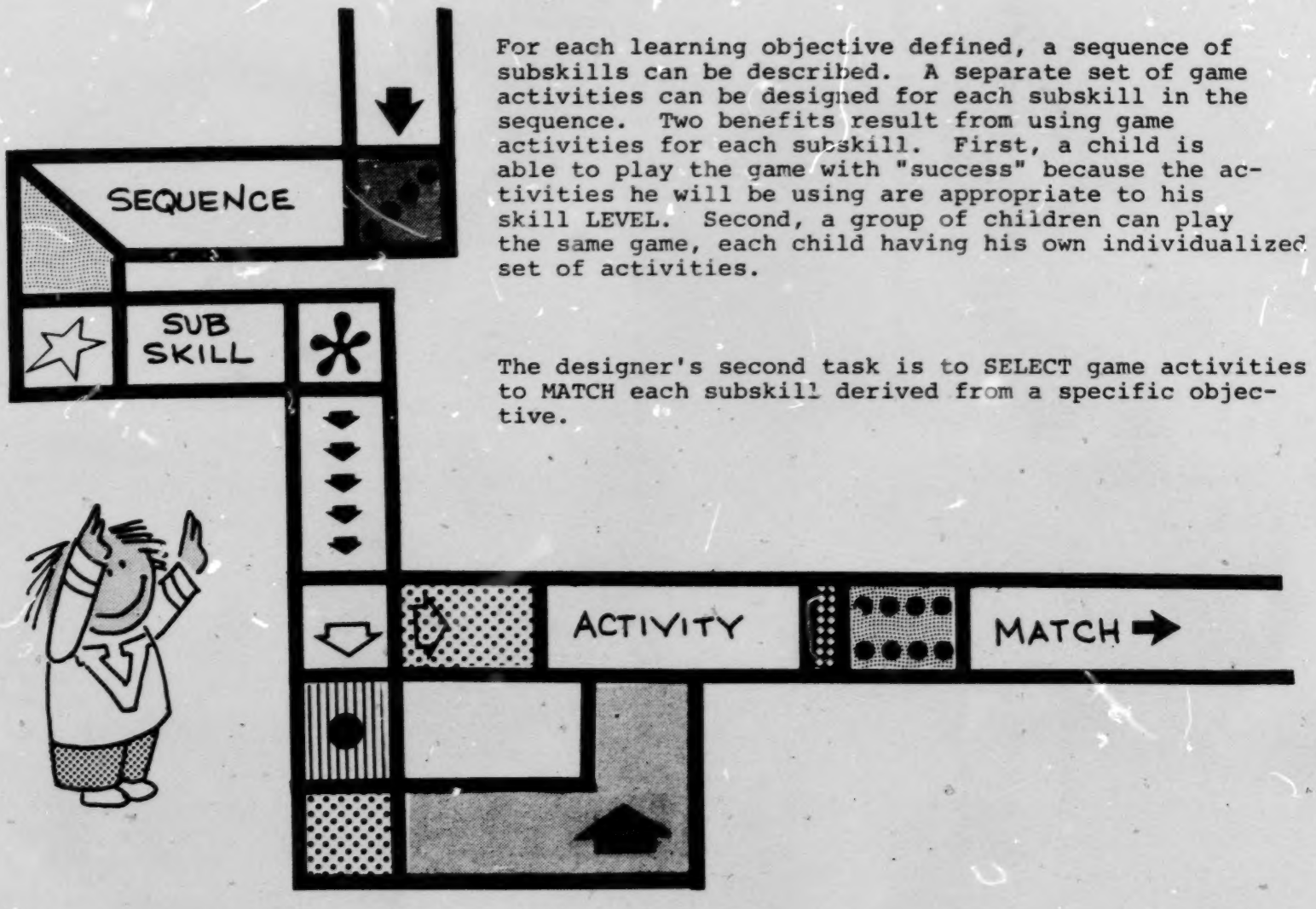
Multi-purpose gameboards can accommodate a variety of CONTENT areas. For instance, if the major skill development need of a child lies in the area of Preacademics, consider all of the activities that could be designed for naming, matching, sorting, and counting -- ALL that could be played on one gameboard.

If the need area is in Career Education, consider the activities that could be designed for role definitions in the home, neighborhood and community.

Of the arts, dance forms, musical instruments, and dramatic works each have the potential for a series of games to be played on one gameboard.

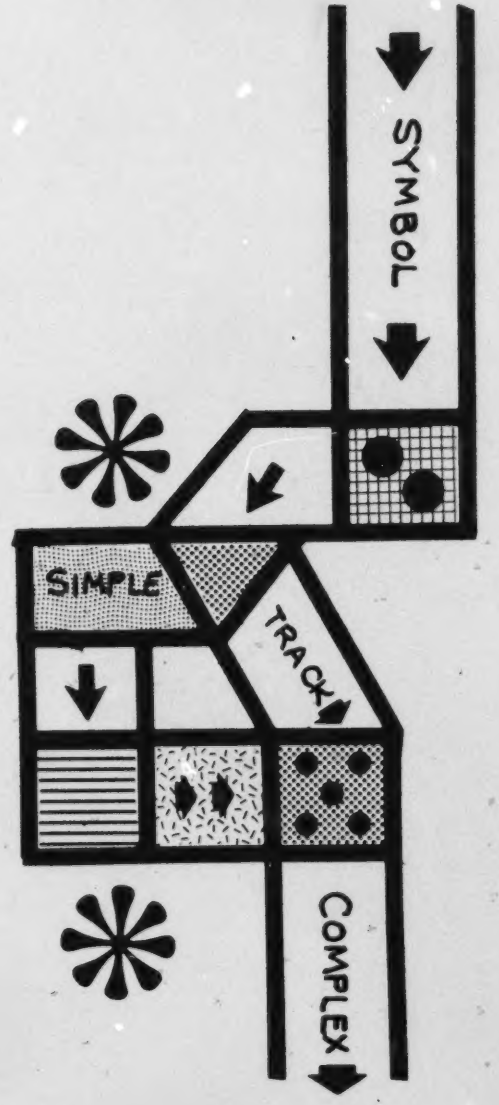
The designer's first task is to SELECT a content area and DEFINE the related learning objectives in accordance with the child's need.





For each learning objective defined, a sequence of subskills can be described. A separate set of game activities can be designed for each subskill in the sequence. Two benefits result from using game activities for each subskill. First, a child is able to play the game with "success" because the activities he will be using are appropriate to his skill LEVEL. Second, a group of children can play the same game, each child having his own individualized set of activities.

The designer's second task is to SELECT game activities to MATCH each subskill derived from a specific objective.

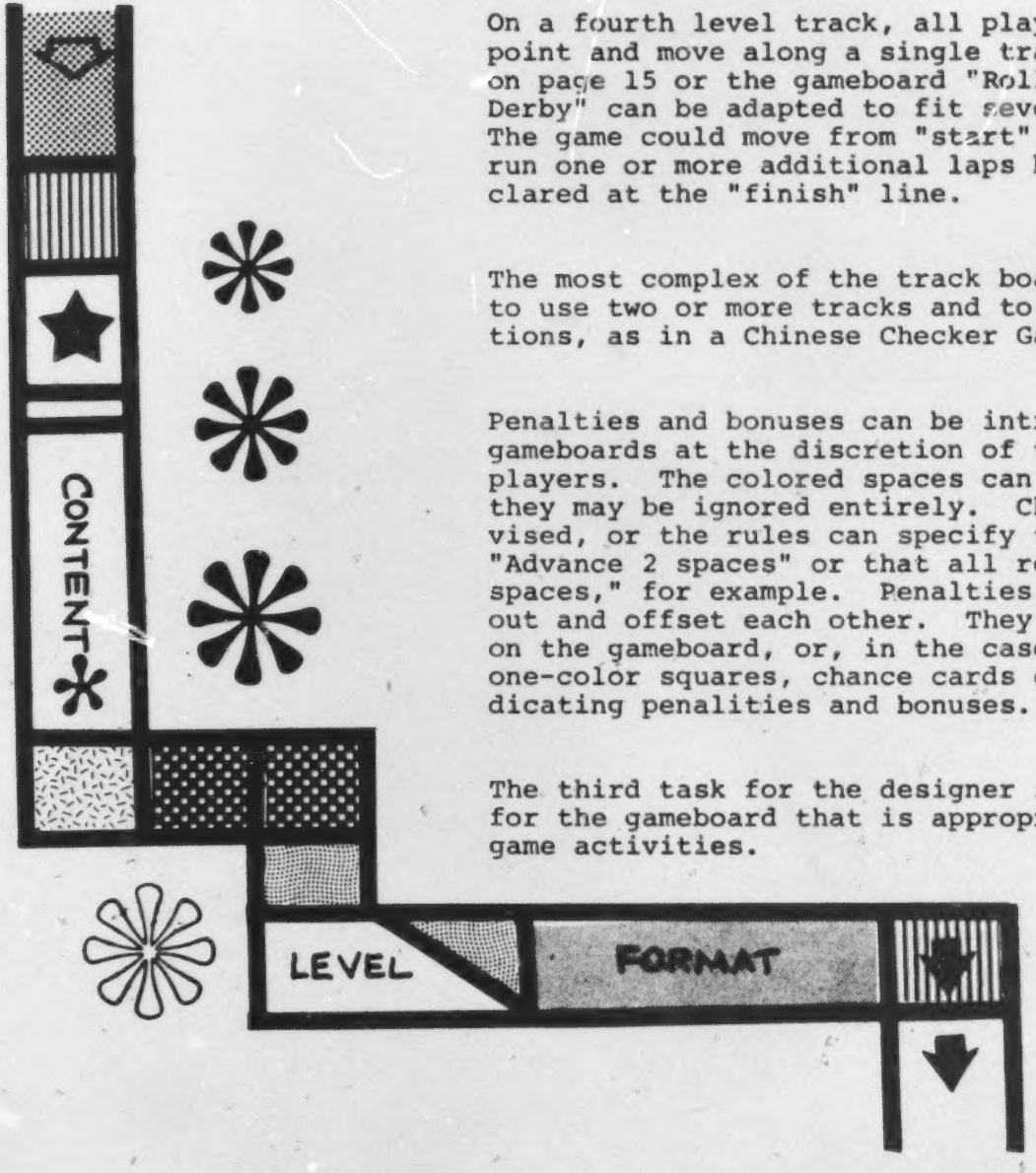


There are two basic FORMATS for gameboards: Symbol boards and Track boards. The Symbol board requires the player to match the symbol on the board with identical three dimensional objects. Track boards, with which we will be concerned, can be designed with varying levels of complexity.[2]

The simplest board has each player at a different start point, moving a short distance on a straight track with no overlap of the other players' tracks. (See the sample on page 13 or the gameboards "Rescue" and "Swim Meet Fun.")

On a second level board, the players have longer, winding tracks, still without overlap. (See the sample of page 14 or the gameboard "Cycle Paths.") "Cycle Paths" can be adapted so that the players all begin at the center and curve outward, each begin at individual path ends and converge on the center, or each begin at path ends and continue through the center to another player's base for the first overlap encounter.

Third level boards have overlapping tracks that expand the length of the game. (See the gameboards "Speed Track" and "Race for Space.") "Speed Track" can be adapted like "Cycle Paths" with all players beginning at the center, or each beginning at a path end and continuing through the center to another player's base. "Race for Space" may be adapted so that a player moves from one base to the adjacent base for a short game with little interaction, or from one base to the opposite base for a longer game requiring more interaction, or from one base with return to that same base for the longest game requiring the most interaction.

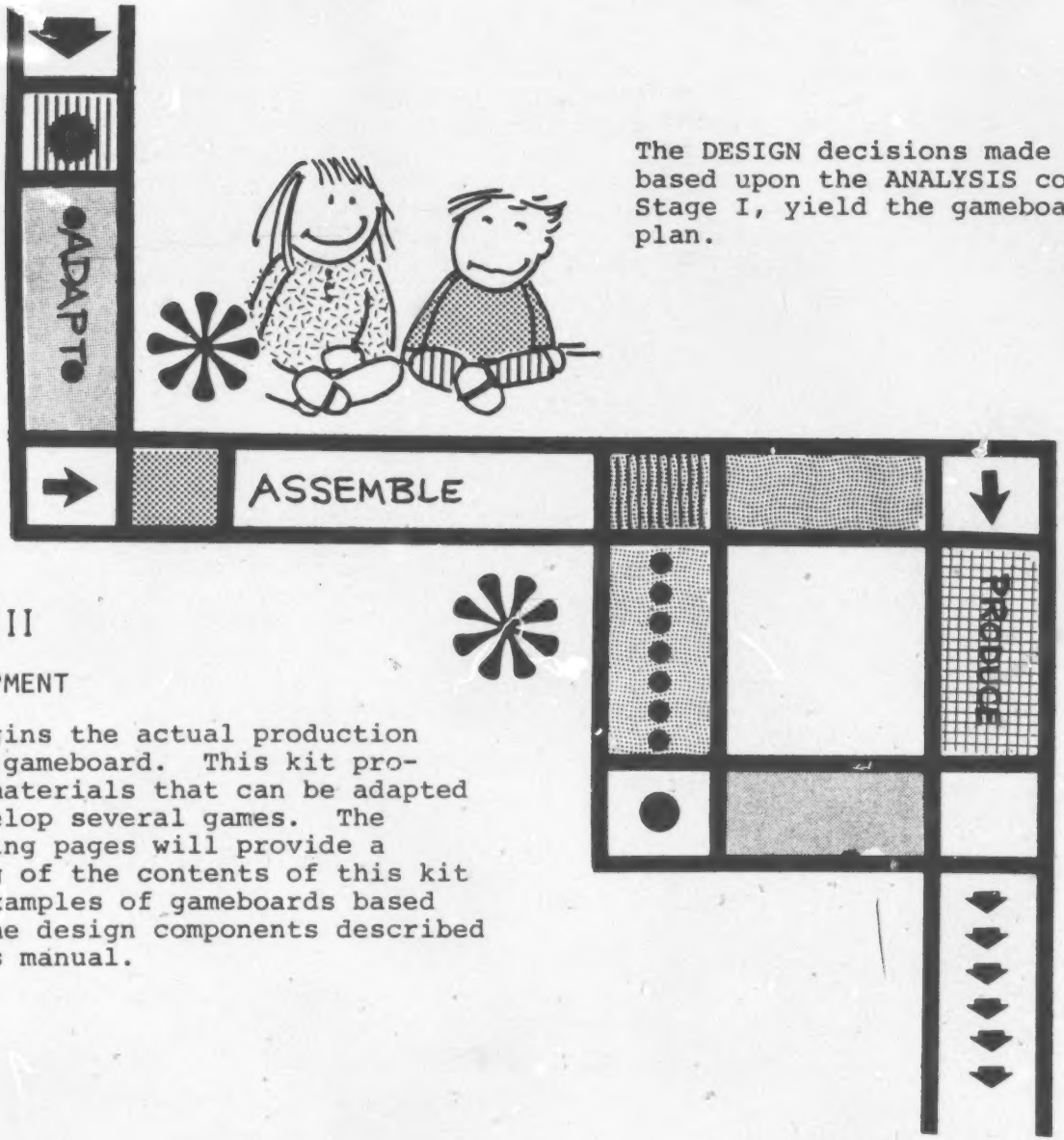


On a fourth level track, all players begin at the same point and move along a single track. (See the sample on page 15 or the gameboard "Roller Derby.") "Roller Derby" can be adapted to fit several time frame needs. The game could move from "start" to "finish" or it could run one or more additional laps before a winner is declared at the "finish" line.

The most complex of the track boards requires all players to use two or more tracks and to move in several directions, as in a Chinese Checker Game.

Penalties and bonuses can be introduced on any of the gameboards at the discretion of the game director or the players. The colored spaces can be used for chance or they may be ignored entirely. Chance cards can be devised, or the rules can specify that all blue spaces mean "Advance 2 spaces" or that all red spaces mean "Go back 2 spaces," for example. Penalties and bonuses should balance out and offset each other. They can be written directly on the gameboard, or, in the case of gameboards with one-color squares, chance cards can be developed for indicating penalities and bonuses.

The third task for the designer is to SELECT a format for the gameboard that is appropriate for the players and game activities.



The DESIGN decisions made in Stage II based upon the ANALYSIS completed in Stage I, yield the gameboard development plan.

STAGE III

DEVELOPMENT

Now begins the actual production of the gameboard. This kit provides materials that can be adapted to develop several games. The following pages will provide a listing of the contents of this kit plus examples of gameboards based upon the design components described in this manual.

KIT CONTENTS:

Player Tokens (12)

Crayons (8 washable colors)

Regular Dice (1 pair)

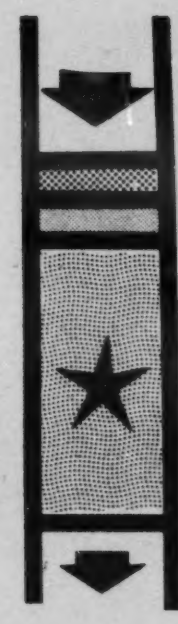
Blank Dice (2 pair)

Spinners (3)

Blank Playing Cards (25)

Gameboards (3 boards with 6 game patterns)

The Game Bag Manual

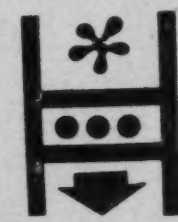


COMMENTS:

Both the blank dice and the spinner can be used in a variety of ways. In addition to using the traditional numbers on the sides or in the sections, you might consider using pictures, vowels, consonants, Roman numerals, words, etc. These items can be marked with crayons or non-permanent magic markers. A mild detergent will clean the surfaces.

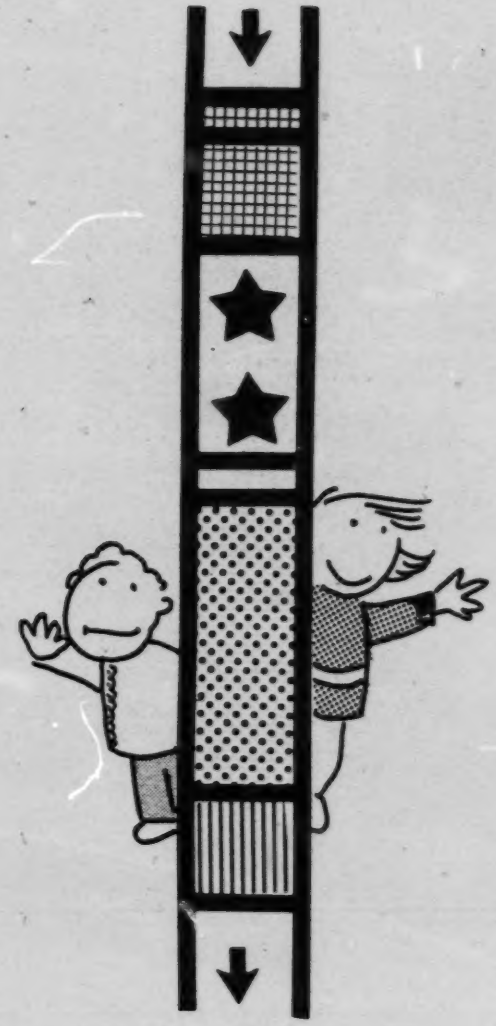
Numbers 1 through 3 only may be used to lengthen game play. The use of higher numbers will speed game play.

The spinner sections can be sub-divided to create more spaces, if desired.



EASILY AVAILABLE MATERIALS:

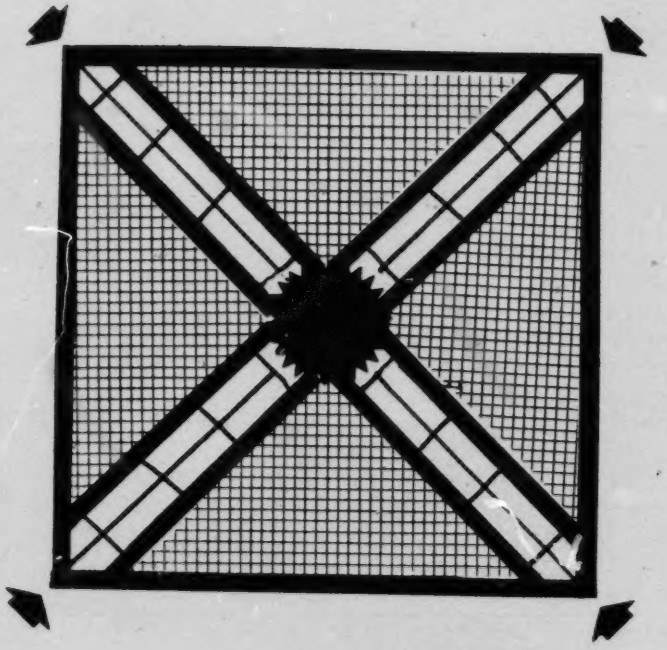
- Felt tip markers
- 3" x 5" blank cards in various colors
- Wooden blocks in assorted colors
- Play money
- Graph paper
- Water base paints
- Magazine cutouts
- Toy miniatures
- White oil cloth (for rollable game board)
- Transparent plastic film
- Fruit juice can (for dice shakers)
- Alarm clock (for timed games)
- Stick-on labels
- Colored poker chips
- Costume jewelry (for non-monetary wealth)



COMMENTS:

These items are additional suggestions only. They are not necessary components for the playing of these games.

SAMPLE GAMEBOARD



CONTENT: Preacademic: Shapes

SKILL LEVELS: Identify Shapes

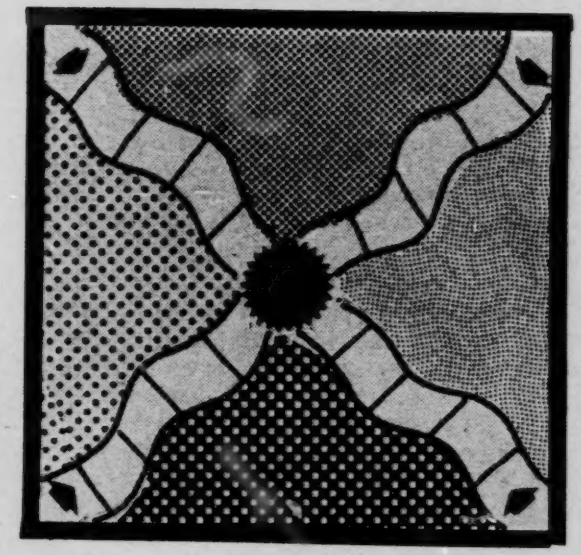
1) Match to sample eg "Show me one like this?
2) Touch shape on command eg "Touch the circle"
3) Given an example, name the shape eg "What shape is this?"
4) Given an example, show another in the environment
5) Draw a given shape

FORMAT: Level one track board

PROCEDURES: Up to four players may be involved in this game. Each "start" point can be colored a different color. To determine who goes first, present several chips representing the four colors to the players and have each player draw one. The "first" color can be pre-determined. Each player will play on the colored track that matches his chip. The game controller (adult, peer tutor, etc.) presents a task to the first player who may, for instance, be functioning at skill level 1. All of that player's tasks will be of the level 1 type. The controller presents a token to the player to place on square one if the response is correct. The controller goes to the second player who may be functioning at a different level and presents an appropriate task and so forth for each player, presenting tokens for placement on the track until the goal is reached. Tokens may then be returned for a re-inforcer.

TASK WORDS: Circle, square, triangle, show me, touch, name, put on, draw, etc.

SAMPLE GAMEBOARD



CONTENT: Academics: Reading

SKILL LEVELS: Read words orally

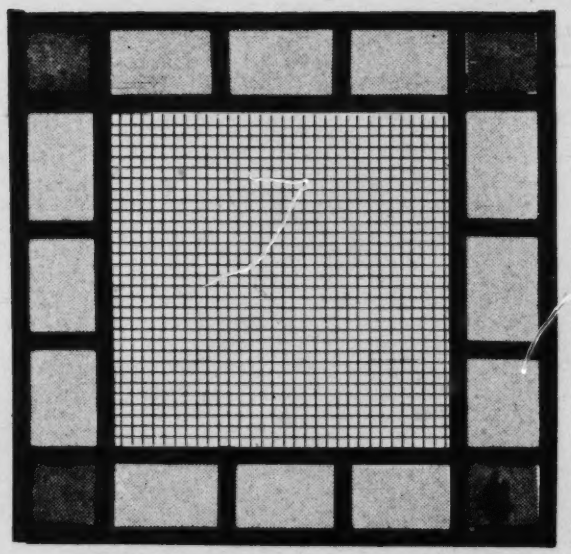
1. CV - consonant vowel
2. VC - vowel consonant
3. CVC - consonant vowel consonant
4. CVCV - consonant vowel consonant vowel
5. CVCC - consonant vowel consonant consonant
6. CCVC - consonant consonant vowel consonant

FORMAT: Level two track board

PROCEDURES: Up to four players will use a numbered spinner. Each will play from a deck of word cards (at least 20) that are appropriate to his level of functioning. Each player will in turn spin and read that number of words from his deck. For each word read correctly, he may move his token forward one space on the track. Upon reaching the goal, each player receives a reinforcer or chip to redeem later and then returns his token to "start" to continue in turn spinning, reading word cards from his deck and collecting chips as long as playing time allows.

TASK WORDS: Read, spin, return

SAMPLE GAMEBOARD



CONTENT: Academics: Multiplication Facts

SKILL LEVELS: Compute times tables: 6's & 7's

1. Facts up to 6 X 5
2. Facts 6 X 6 and upward
3. Facts up to 7 X 5
4. Facts 7 X 6 and upward
5. Problems 6 X /_/ = 2 thru 5
6. Problems 6 X /_/ = 6 and upward
7. Problems 7 X /_/ = 2 thru 5
8. Problems 7 X /_/ = 6 and upward

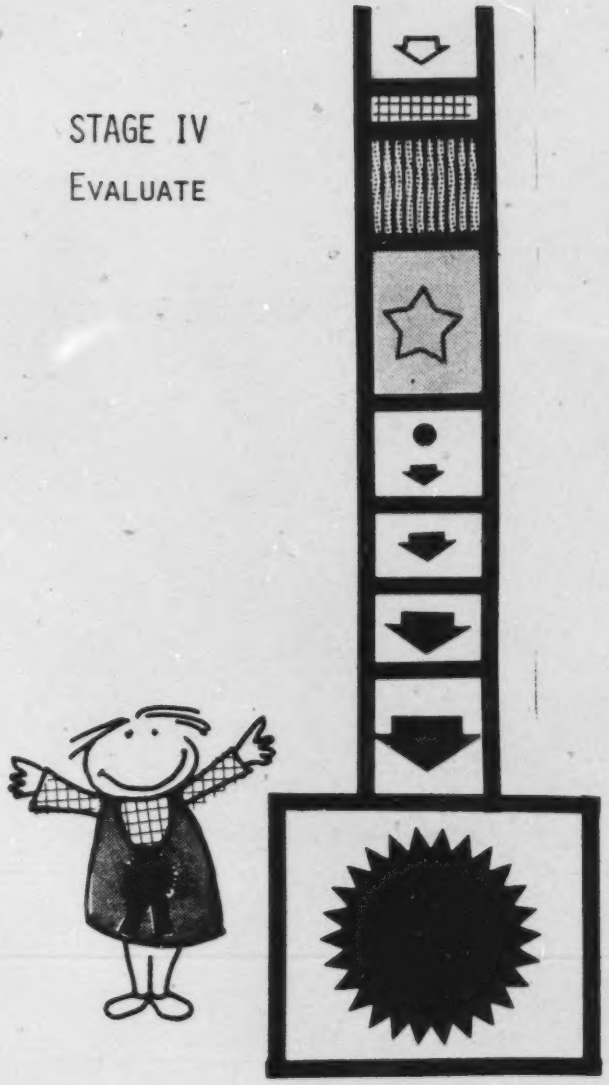
FORMAT: Level four track board

PROCEDURES: To select playing order, each player rolls the numbered dice. The player who rolls the lowest number will go first and then may choose players to go 2nd, 3rd, etc. Each player is given a deck of task cards at his functioning level. Optionally, each player may select the level of task cards he wishes to play. However, he should be encouraged to select an appropriate level. If the game controller predetermines the reinforcers for each player at each skill level, the appropriate selection is more likely to occur. Each player in turn draws a task card and responds to that task. For the correct answer, the player may roll the dice and move forward that number of spaces on the track. If the task response is incorrect, the player loses his turn for rolling the dice. Play continues on the board until a "winner" completes one trip around the track to the finish line.

TASK WORDS: Multiply, solve equation, chance, etc.

STAGE IV

EVALUATE



The value or success of a gameboard can be determined best by the players themselves. So try it out and see what they say. Observe the players while the game is in progress to see if any difficulties arise. Some re-designing may need to take place if the rules are confusing or too complex. Check skill level performance to be certain the tasks are matched to each player's ability.

The board game can be evaluated by teachers, parents and other children as well. Seeking their assistance will help clarify objectives and game playing procedures.

Trade games with other developers and watch the collection grow.

BIBLIOGRAPHY OF GAMES/GAMING RESOURCES

This is an informational list only. Inclusion or exclusion of a title on this list does not necessarily imply special recommendation or condemnation by the agencies sponsoring this manual.

INSTRUCTIONAL MATERIALS

Continuous Progressive Spelling (CPS) Variety Day Kit. Individualized Instruction, Inc., Economy Company, P. O. Box 25308, Oklahoma City, OK 73125.

Catalog available

Corris, Edward. Exact Change. Newton, MA: Edward Corris. $6.95.

Football Skill-O. Winston-Salem, NC: Instructional Materials Development Center. $2.00.

Gameboards (Packet of 5 gameboards on such topics as Vowels, Consonants, Telling Time, Sports Addition). Palos Verdes Peninsula, CA: Frank Schaffer Publications. $3.95 per packet.

Duplicating Puzzles, Games & Activities. Hayes School Publishing Company, Inc., 321 Pennewood Avenue, Wilkinsburg, PA 15221.

Catalog available

Game Maker (A kit of items for making games). Chicago, IL: Little Kenny, $5.75.

Kohfeldt, Joyce. Multifunctional Gameboards (such as Football, Baseball, Raceway, Swiss Trail). Wayne, NJ: Innovative Education Support Systems. $3.50 each or 3 for $10.00.

Liu, Sarah and Vittitow, Mary Lou. Games Without Losers. Nashville, TN: Incentive Publications. $5.00.

Makeagames (Manual and ten black and white game sheets). Chicago, IL: Little Kenny. $12.00.

Math Games (20). Dynamic Learning, 59 Commercial Wharf, Boston, MA 02110. Level: K-3. $36.00.

Ploutz, Paul F. Decimeter. Athens, OH: The Lawhead Press, Inc. $11.00.

The Radlauers. Gold Cup Reading Games (such as Minibike, Gran Prix, The Great Balloon Race). Los Angeles, CA: Bowmar. $15.00 each or 6 for $81.00.

Ross, Dorothea. Pacemaker Games Program. Belmont, CA: Fearon Publishers. $36.00.

Smith, D. Winston, Jr. Pirate Cache. Athens, OH: The Lawhead Press, Inc. $11.00.

Terrific Traffic. Winston-Salem, NC: Instructional Materials Development Center. $2.75.

The Winning Touch: Multiplication Facts Game. Lakeshaw Curriculum Materials Co., P. O. Box 2116, San Leandro, CA 94577. Level: Primary-Intermediate. $7.50 @ + $1.25 handling and postage.

PUBLICATIONS

These and other publications present a variety of information on games at various times. Specific games are published in some instances.

1. Focus on Exceptional Children. Published nine times during the school year. Annual subscription, $10.00. 6635 East Villanova Place, Denver, CO 80222.

   The October, 1976 issue features ideas for gameboards and the lead article by Joyce Kohfeldt.

2. Good Apple Newspaper. Good Apple, Box 299, Carthage, IL 62321. Five issues at $10.00 per year. Back issues and reprints available.

3. K-3 Bulletin of Teaching Ideas and Materials. Parker Publishing Co., Inc., West Nyack, NY 10994. Subscription $18.00 per year. Published monthly for 10 months.

4. The Inservice Consultor. Published in January, March, May, July, September, and November. Annual subscription, $7.50, single copy, $1.50. Greeley, CO: Educational Consultant Enterprises, Inc., P. O. Box 1471.

   Boland, Sandra K., co-editor, Seen-Saw/Don't-Doesn't Game. Inservice Consultor, 1975, 1, 6.

   Thiagarajan, Sivasailam and Stolovitch, Harold D. Gamegame V: New Games From Old Frames. Inservice Consultor, 1976, 2, 3.

5. Learning. Published nine times during the school year. Annual subscription $12.00; single copy, $1.50. Boulder, CO: 1255 Portland Place.

   Harrison, Marta. Season Openers: Games for More Than The Fun of It. Learning, 1976, 5, 1.

6. Teaching Exceptional Children. Published four times a year. Annual subscription, $12.50; single copy, $3.50; included in membership dues to The Council for Exceptional Children.

PROFESSIONAL MATERIALS

Bicentennial Games 'n Fun Handbook. Acropolis Books, Ltd., Colortone Building, 2400 17th Street, NW, Washington, DC 20009. Level: Primary-Intermediate. $6.95 @ Paper cover + $.45 shipping.

Cratty, Bryant J. Active Learning: Games to Enhance Academic Abilities. Englewood Cliffs, NY: Prentice-Hall, Inc. $7.50.

Creating and Using Learning Games. Learning Handbooks, Department 0102, P. O. Box 818, Maple Plain, MN 55359. $2.50 @ + $.75 shipping.

Galzier, Ray. How to Design Educational Games. ABT Associates, Inc., 1969. $2.50.

Kingham, Harriet. Classrooms and Workshop Tested Games, Puzzles and Activities for the Elementary School. Early Learning Book Club, 1976.

Pearson, Craig and Marferggi, Joe. Creating and Using Learning Games. Whiteley, Carol B., ed. Palo Alto, CA: Education Today Company, Inc., 1975. $2.50.

Polon, Linda and Pollitt, Mandy. Creative Teaching Games. Minneapolis, MN. T. S. Denison and Company, Inc. $6.95.

Sesame Street. Big Bird's Busy Book: Things to Make, Things to Do, Games and Stories, Recipes Too. Early Learning Book Club, 1976. Riverside: NJ 08075. Both - $13.90.

Spice Series. Educational Services, Inc., P. O. Box 219, Stevensville, MI 49127. $5.25 @

Catalog available

Teaching Aids and Games. Trend Enterprises, P. O. Box 3073, Dept L-9C, St. Paul, MN 55165.

Catalog available.

The Whole Learning Catalog. P. O. Box 818, Dept 0502, Maple Plain, MN 55359. $9.95.

PROFESSIONAL RESOURCES

1. Center for Creative Leadership, Greensboro, NC.
   Contact persons: Dr. David DeVries and Dr. Michael Lombardo.

2. North American Simulation and Gaming Association (NASAGA), c/o Office of Research, Evaluation and Planning, North Carolina Central University, Durham, NC. Annual dues, $5.00.

3. Center for Innovation in Teaching the Handicapped, 280 East 10th Street, Indiana University, Bloomington, IN 47401.

RSTAC INFORMATION

For further information on borrowing and/or ordering materials listed in the Bibliography, please contact the RSTAC serving your region:

Northeast Region 1

RSTAC
P. O. Box 1028
Williamston, NC 27892
(Telephone: 919/792-5166)

Southeast Region 2

RSTAC
612 College Street, Room 200
Jacksonville, NC 28540
(Telephone: 919/455-3903)

Central Region 3

RSTAC
Division for Exceptional Children
State Department of Public Instruction
Raleigh, NC 27611
(Telephone: 919/829-3181
after 1/15/77: 919/733-3181)

South Central Region 4

RSTAC
Box 1328
Lumberton, NC 28358
(Telephone: 919/738-9624)

North Central Region 5

RSTAC
McIver School
1401 Summit Avenue
Greensboro, NC 27405
(Telephone: 919/273-3420)

Southwest Region 6

RSTAC
619 Wall Street
Albemarle, NC 28001
(Telephone: 704/983-2126)

Northwest Region 7

RSTAC
P. O. Box 1308
North Wilkesboro, NC 28659
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Western Region 8

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The development and production of this kit was accomplished through assistance from the Mid-East Area Learning Resource Center pursuant to a contract with the Bureau of Education for the Handicapped, Office of Education, U. S. Department of Health, Education and Welfare. Contractors undertaking such projects under government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. The points of view or opinions stated do not, therefore, necessarily represent official Bureau position or policy.